

特 許 協 力 条 約

PCT

国際予備審査報告

(法第12条、法施行規則第56条)  
〔PCT36条及びPCT規則70〕

REC'D 05 FEB 2001

WIPO PCT

出願人又は代理人 の書類記号 H702-01	今後の手続きについては、国際予備審査報告の送付通知(様式PCT/ IPEA/416)を参照すること。	
国際出願番号 PCT/JPO0/00984	国際出願日 (日.月.年) 21.02.00	優先日 (日.月.年) 22.02.99
国際特許分類(IPC) Int. Cl <sup>7</sup> C12N9/48, C12N1/20, C12Q1/37		
出願人(氏名又は名称) アークレイ株式会社		

- 国際予備審査機関が作成したこの国際予備審査報告を法施行規則第57条(PCT36条)の規定に従い送付する。
- この国際予備審査報告は、この表紙を含めて全部で 4 ページからなる。  
☐ この国際予備審査報告には、附属書類、つまり補正されて、この報告の基礎とされた及び/又はこの国際予備審査機関に対してした訂正を含む明細書、請求の範囲及び/又は図面も添付されている。  
(PCT規則70.16及びPCT実施細則第607号参照)  
この附属書類は、全部で \_\_\_\_\_ ページである。
- この国際予備審査報告は、次の内容を含む。
  - ☒ 国際予備審査報告の基礎
  - ☐ 優先権
  - ☐ 新規性、進歩性又は産業上の利用可能性についての国際予備審査報告の不作成
  - ☐ 発明の単一性の欠如
  - ☒ PCT35条(2)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明
  - ☐ ある種の引用文献
  - ☐ 国際出願の不備
  - ☒ 国際出願に対する意見

国際予備審査の請求書を受理した日 04.09.00	国際予備審査報告を作成した日 22.01.01	
名称及びあて先 日本国特許庁(IPEA/JP) 郵便番号100-8915 東京都千代田区霞が関三丁目4番3号	特許庁審査官(権限のある職員) 平田 和男 電話番号 03-3581-1101 内線 3448	4N 7823

様式PCT/IPEA/409(表紙)(1998年7月)

## I. 国際予備審査報告の基礎

1. この国際予備審査報告は下記の出願書類に基づいて作成された。(法第6条(PCT14条)の規定に基づく命令に  
応答するために提出された差し替え用紙は、この報告書において「出願時」とし、本報告書には添付しない。  
PCT規則70.16, 70.17)

☒ 出願時の国際出願書類

- ☐ 明細書 第 \_\_\_\_\_ ページ、 出願時に提出されたもの  
明細書 第 \_\_\_\_\_ ページ、 国際予備審査の請求書と共に提出されたもの  
明細書 第 \_\_\_\_\_ ページ、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 請求の範囲 第 \_\_\_\_\_ 項、 出願時に提出されたもの  
請求の範囲 第 \_\_\_\_\_ 項、 PCT19条の規定に基づき補正されたもの  
請求の範囲 第 \_\_\_\_\_ 項、 国際予備審査の請求書と共に提出されたもの  
請求の範囲 第 \_\_\_\_\_ 項、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 図面 第 \_\_\_\_\_ ページ/図、 出願時に提出されたもの  
図面 第 \_\_\_\_\_ ページ/図、 国際予備審査の請求書と共に提出されたもの  
図面 第 \_\_\_\_\_ ページ/図、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 明細書の配列表の部分 第 \_\_\_\_\_ ページ、 出願時に提出されたもの  
明細書の配列表の部分 第 \_\_\_\_\_ ページ、 国際予備審査の請求書と共に提出されたもの  
明細書の配列表の部分 第 \_\_\_\_\_ ページ、 \_\_\_\_\_ 付の書簡と共に提出されたもの

2. 上記の出願書類の言語は、下記に示す場合を除くほか、この国際出願の言語である。

上記の書類は、下記の言語である \_\_\_\_\_ 語である。

- ☐ 国際調査のために提出されたPCT規則23.1(b)にいう翻訳文の言語  
☐ PCT規則48.3(b)にいう国際公開の言語  
☐ 国際予備審査のために提出されたPCT規則55.2または55.3にいう翻訳文の言語

3. この国際出願は、ヌクレオチド又はアミノ酸配列を含んでおり、次の配列表に基づき国際予備審査報告を行った。

- ☐ この国際出願に含まれる書面による配列表  
☐ この国際出願と共に提出されたフレキシブルディスクによる配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出された書面による配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出されたフレキシブルディスクによる配列表  
☐ 出願後に提出した書面による配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述書の提出があった  
☐ 書面による配列表に記載した配列とフレキシブルディスクによる配列表に記録した配列が同一である旨の陳述書の提出があった。

4. 補正により、下記の書類が削除された。

- ☐ 明細書 第 \_\_\_\_\_ ページ  
☐ 請求の範囲 第 \_\_\_\_\_ 項  
☐ 図面 図面の第 \_\_\_\_\_ ページ/図

5. ☐ この国際予備審査報告は、補充欄に示したように、補正が出願時における開示の範囲を越えてされたものと認められるので、その補正がされなかったものとして作成した。(PCT規則70.2(c) この補正を含む差し替え用紙は上記1.における判断の際に考慮しなければならず、本報告に添付する。)

V. 新規性、進歩性又は産業上の利用可能性についての法第12条(PCT35条(2))に定める見解、それを裏付ける文献及び説明

1. 見解

新規性(N)	請求の範囲	1-15	有
	請求の範囲		無
進歩性(IS)	請求の範囲	1-15	有
	請求の範囲		無
産業上の利用可能性(IA)	請求の範囲	1-15	有
	請求の範囲		無

2. 文献及び説明(PCT規則70.7)

国際調査報告で引用された文献1(US, 5370990, A(Genzyme UK LTD.)1994.12.03,)、文献2(SHIN, S-W. 'Identification of the Protease Producing Bacteria to Use Fish Meal Wastewater and the Producing Conditions for the Enzyme.' Bull. Korean Fish. Soc., 1989, Vol.22, No.3, pages 138 to 146)に記載されたプロテアーゼが、 $\alpha$ アミノ基が糖化された末端アミノ酸残基を遊離するものか記載がなく、また、該プロテアーゼが $\alpha$ アミノ基が糖化された末端アミノ酸残基を遊離することが当業者にとって自明でもない。

## Ⅷ. 国際出願に対する意見

請求の範囲、明細書及び図面の明瞭性又は請求の範囲の明細書による十分な裏付けについての意見を次に示す。

請求項 1 に記載される新規酵素として明細書に十分な裏付けをもって記載されるのはコリネバクテリウム属及びシュードモナス属の菌体由来のものだけである。

## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF RECEIPT OF  
RECORD COPY

(PCT Rule 24.2(a))

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku,  
Osaka-shi, Osaka 530-0047  
JAPON



Date of mailing (day/month/year) 09 March 2000 (09.03.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H702-01	International application No. PCT/JP00/00984

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

KYOTO DAIICHI KAGAKU CO., LTD (for all designated States except US)  
ISHIMARU, Kaori et al (for US)

International filing date : 21 February 2000 (21.02.00)  
Priority date(s) claimed : 22 February 1999 (22.02.99)  
12 April 1999 (12.04.99)

Date of receipt of the record copy  
by the International Bureau : 03 March 2000 (03.03.00)

List of designated Offices :

AP : GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW  
EA : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
OA : BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
National : AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB,  
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

## ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- ☒ time limits for entry into the national phase  
☒ confirmation of precautionary designations  
☒ requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer:

Shinji IGARASHI

Facsimile No. (41-22) 740.14.35

Telephone No. (41-22) 338.83.38

## INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is **20 MONTHS** from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, **30 MONTHS** from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. **It is the applicant's responsibility** to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

## CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

## REQUIREMENTS REGARDING PRIORITY DOCUMENTS

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.

## PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON



Date of mailing (day/month/year) 20 April 2000 (20.04.00)	
Applicant's or agent's file reference H702-01	<b>IMPORTANT NOTIFICATION</b>
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 22 February 1999 (22.02.99)
Applicant KYOTO DAIICHI KAGAKU CO., LTD et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, **the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.**
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, **the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.**

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
22 Febr 1999 (22.02.99)	11/42926	JP	07 Apr 2000 (07.04.00)
12 Apr 1999 (12.04.99)	11/142186	JP	07 Apr 2000 (07.04.00)

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Carlos Naranjo

Telephone No. (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON

Date of mailing (day/month/year) 01 November 2000 (01.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H702-01	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)

## 1. The following indications appeared on record concerning:

☒ the applicant      ☐ the inventor      ☐ the agent      ☐ the common representative

Name and Address KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan	State of Nationality JP	State of Residence JP
	Telephone No. +81-75-662-8956	
	Facsimile No. +81-75-662-8969	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

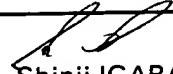
☐ the person      ☒ the name      ☐ the address      ☐ the nationality      ☐ the residence

Name and Address ARKRAY, INC. 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan	State of Nationality JP	State of Residence JP
	Telephone No. +81-75-662-8956	
	Facsimile No. +81-75-662-8969	
	Teleprinter No.	

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Shinji IGARASHI
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38



## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON

Date of mailing (day/month/year) 01 November 2000 (01.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H702-01	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)

## 1. The following indications appeared on record concerning:

☒ the applicant    ☒ the inventor    ☐ the agent    ☐ the common representative

## Name and Address

1) ISHIMARU, Kaori  
2) YAGI, Masayuki  
3) YONEHARA, Satoshi  
Kyoto Daiichi Kagaku Co., Ltd  
57, Nishiaketa-cho, Higashikujo  
Minami-ku  
Kyoto-shi, Kyoto 601-8045  
Japan

## State of Nationality

JP

## State of Residence

JP

## Telephone No.

## Facsimile No.

## Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person    ☐ the name    ☒ the address    ☐ the nationality    ☐ the residence

## Name and Address

1) ISHIMARU, Kaori  
2) YAGI, Masayuki  
3) YONEHARA, Satoshi  
Arkray, Inc.  
57, Nishiaketa-cho, Higashikujo  
Minami-ku  
Kyoto-shi, Kyoto 601-8045  
Japan

## State of Nationality

JP

## State of Residence

JP

## Telephone No.

## Facsimile No.

## Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Shinji IGARASHI

Telephone No.: (41-22) 338.83.38

# PATENT COOPERATION TREATY

WO 00/50579  
PCT/JP00/00984

PCT

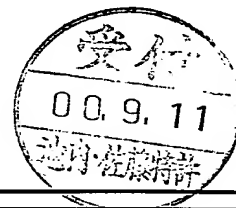
## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON



Date of mailing (day/month/year) 31 August 2000 (31.08.00)		IMPORTANT NOTICE	
Applicant's or agent's file reference H702-01			
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)	
Applicant KYOTO DAIICHI KAGAKU CO., LTD et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AU, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
AE, AL, AM, AP, AT, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EA, EE, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, OA, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW  
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).
3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 31 August 2000 (31.08.00) under No. WO 00/50579

### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer J. Zahra Telephone No. (41-22) 338.83.38
--	---

## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

INFORMATION CONCERNING ELECTED  
OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON



Date of mailing (day/month/year) 01 November 2000 (01.11.00)		IMPORTANT INFORMATION	
Applicant's or agent's file reference H702-01			
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)	
Applicant ARKRAY, INC. et al			

1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:

AP : GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW  
EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
National : AU, BG, CA, CN, CZ, DE, IL, JP, KR, MN, NO, NZ, PL, RO, RU, SE, SK, US

2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:

EA : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
OA : BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
National : AE, AL, AM, AT, AZ, BA, BB, BR, BY, CH, CR, CU, DK, DM, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IN, IS, KE, KG, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MW, MX, PT, SD,  
SG, SI, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

3. The applicant is reminded that he must enter the "national phase" before the expiration of 30 months from the priority date before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 39(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 36(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed until 31 months from the priority date for all States designated for the purposes of obtaining a European patent.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer:  Shinji IGARASHI  Telephone No. (41-22) 338.83.38
--	---

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ JP

TRANSLATION

**PCT**

**CHAPTER II**

**DEMAND**

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only		
Identification of IPEA		Date of receipt of DEMAND
<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>		Applicant's or agent's file reference H702-01
International application No. PCT/JP00/00984	International filing date (day/month/year) 21. 02. 00	(Earliest) Priority date (day/month/year) 22. 02. 99
Title of invention NOVEL ENZYME		
<b>Box No. II APPLICANT(S)</b>		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  ARKRAY, INC. 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		Telephone No.: 075-662-8956
		Facsimile No.: 075-662-8969
		Teleprinter No.:
State (that is, country) of nationality: JAPAN		State (that is, country) of residence: JAPAN
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  ISHIMARU Kaori c/o ARKRAY, INC., 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		
State (that is, country) of nationality: JAPAN		State (that is, country) of residence: JAPAN
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  YAGI Masayuki c/o ARKRAY, INC., 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		
State (that is, country) of nationality: JAPAN		State (that is, country) of residence: JAPAN
<input checked="" type="checkbox"/> Further applicants are indicated on a continuation sheet.		

## Continuation of Box No. II APPLICANT(S)

*If none of the following sub-boxes is used, this sheet should not be included in the demand.*

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

YONEHARA Satoshi  
c/o ARKRAY, INC., 57, Nishiaketa-cho, Higashikujo, Minami-ku,  
Kyoto-shi, Kyoto 601-8045 JAPAN

State *(that is, country)* of nationality: JAPAN

State *(that is, country)* of residence: JAPAN

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

☐ Further applicants are indicated on another continuation sheet.

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**The following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*9555 Patent Attorney IKEUCHI Hiroyuki  
7657 Patent Attorney SATO Kimihiro  
Suite 401, UMEDA PLAZA Building, 3-25, Nishitenma 4-chome,  
Kita-ku, Osaka-shi, Osaka 530-0047 JAPAN

Telephone No.: ..

06-6361-9334

Facsimile No.:

06-6361-9335

Teleprinter No.:

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:\***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filed

the description

☐ as originally filed☐ as amended under Article 34

the claims

☐ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34

the drawings

☐ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). *(This check-box may be marked only where the time limit under Article 19 has not yet expired.)*

\* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: Japanese

☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**The applicant hereby elects all eligible States *(that is, all States which have been designated and which are bound by Chapter II of the PCT)*

excluding the following States which the applicant wishes not to elect:

## Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- |  |   |        |
|--|---|--------|
| 1. translation of international application                              | : | sheets |
| 2. amendments under Article 34   | : | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | sheets |
| 4. copy (or, where required, translation) of statement under Article 19  | : | sheets |
| 5. letter  | : | sheets |
| 6. other ( <i>specify</i> )  | : | sheets |

For International Preliminary Examining Authority use only

received not received

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> fee calculation sheet                             | 4. <input type="checkbox"/> statement explaining lack of signature                                  |
| 2. <input type="checkbox"/> separate signed power of attorney                            | 5. <input type="checkbox"/> nucleotide and or amino acid sequence listing in computer readable form |
| 3. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 6. <input type="checkbox"/> other ( <i>specify</i> ):   |

## Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

*Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).*

IKEUCHI Hiroyuki

SATO Kimihiro

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.

☐ The applicant has been informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

特許協力条約に基づく国際出願  
国際予備審査請求書

第 II 章

出願人は、次の国際出願が特許協力条約に従って国際予備審査の対象とされることを請求し、  
選択資格のある全ての国を選択する。ただし、特段の表示がある場合を除く。

国際予備審査機関記入欄		
国際予備審査機関の確認		請求書の受理の日
第 I 欄 国際出願の表示		出願人又は代理人の書類記号 H702-01
国際出願番号 PCT/JP00/00984	国際出願日 (日. 月. 年) 21. 02. 00	優先日 (最先のもの) (日. 月. 年) 22. 02. 99
発明の名称 新規酵素		
第 II 欄 出願人		
氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載) アークレイ株式会社 ARKRAY, INC. 〒601-8045 日本国京都府京都市南区東九条西明田町 57 番地 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		電話番号: 075-662-8956 ファクシミリ番号: 075-662-8969 加入電話番号:
国籍 (国名): 日本国 JAPAN	住所 (国名): 日本国 JAPAN	
氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載) 石丸 香 ISHIMARU Kaori 〒601-8045 日本国京都府京都市南区東九条西明田町 57 番地 アークレイ株式会社内 c/o ARKRAY, INC., 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		
国籍 (国名): 日本国 JAPAN	住所 (国名): 日本国 JAPAN	
氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載) 八木 雅之 YAGI Masayuki 〒601-8045 日本国京都府京都市南区東九条西明田町 57 番地 アークレイ株式会社内 c/o ARKRAY, INC., 57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi, Kyoto 601-8045 JAPAN		
国籍 (国名): 日本国 JAPAN	住所 (国名): 日本国 JAPAN	
<input checked="" type="checkbox"/> その他の出願人が祝儀に記載されている。		



第1 [ 姓 ] の発明者 出願人

この項目欄の横書きを使用しないときは、この用紙を国際予備審査請求書にきめないこと。

氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載)

米原 聡 YONEHARA Satoshi  
〒601-8045 日本国京都府京都市南区東九条西明田町 57 番地  
アークレイ株式会社内  
c/o ARKRAY, INC.,  
57, Nishiaketa-cho, Higashikujo, Minami-ku, Kyoto-shi,  
Kyoto 601-8045 JAPAN

国籍 (国名): 日本国 JAPAN

住所 (国名): 日本国 JAPAN

氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載)

国籍 (国名):

住所 (国名):

氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載)

国籍 (国名):

住所 (国名):

氏名 (名称) 及びあて名: (姓・名の順に記載; 法人は公式の完全な名称を記載; あて名は郵便番号及び国名も記載)

国籍 (国名):

住所 (国名):

☐ その他の出願人が他の続案に記載されている。

## 第III欄 代理人又は共通の代表者、通知のあて名

下記に記載された者は、☒ 代理人 又は ☐ 共通の代表者 として

- ☒ 既に選任された者であって、国際予備審査についても出願人を代理する者である。
- ☐ 今回新たに選任された者である。 先に選任されていた代理人又は共通の代表者は解任された。
- ☐ 既に選任された代理人又は共通の代表者に加えて、特に国際予備審査機関に対する手続きのために、今回新たに選任された者である。

氏名（名称）及びあて名：（姓・名の順に記載；法人は公式の完全な名称を記載；あて名は郵便番号及び国名も記載）

9555 弁理士 池内 寛幸 IKEUCHI Hiroyuki  
 7657 弁理士 佐藤 公博 SATO Kimihiro  
 〒530-0047 日本国大阪府大阪市北区西天満4丁目3番25号  
 梅田プラザビル401号室 Suite 401, UMEDA PLAZA Building, 3-25,  
 Nishitenma 4-chome, Kita-ku, Osaka-shi, Osaka 530-0047 Japan

電話番号：

06-6361-9334

ファクシミリ番号：

06-6361-9335

加入電信番号：

☐ 通知のためのあて名： 代理人又は共通の代表者が選任されておらず、上記枠内に特に通知が送付されるあて名を記載している場合は、レ印を付す。

## 第IV欄 国際予備審査に対する基本事項

補正に関する記述：\*

1. 出願人は、次のものを基礎として国際予備審査を開始することを希望する。

- ☒ 出願時の国際出願を基礎とすること。
- ☐ 明細書に関して ☐ 出願時のものを基礎とすること。
- ☐ 特許協力条約第34条の規定に基づいてなされた補正を基礎とすること。
- ☐ 請求の範囲に関して ☐ 出願時のものを基礎とすること。
- ☐ 特許協力条約第19条の規定に基づいてなされた補正（添付した説明書も含む）を基礎とすること。
- ☐ 特許協力条約第34条の規定に基づいてなされた補正を基礎とすること。
- ☐ 図面に関して ☐ 出願時のものを基礎とすること。
- ☐ 特許協力条約第34条の規定に基づいてなされた補正を基礎とすること。

2. ☐ 出願人は、特許協力条約第19条の規定に基づく請求の範囲について行った補正を無視し、かつ、取り消されたものとみなして開始することを希望する。

3. ☐ 出願人は、国際予備審査の開始が優先日から20月経過後で延期されることを希望する（ただし、国際予備審査機関が、特許協力条約第19条の規定に基づき行われた補正書の写しの受領、又は当該補正を希望しない旨の出願人からの通知を受領した場合を除く（規則69.1(d)））。

（この口は、特許協力条約第19条の規定に基づく期間が満了していない場合にのみ、レ印を付すことができる。）

\* 記入がない場合は、1) 補正がないか又は国際予備審査機関が補正（原本又は写し）を受領していないときは、出願時の国際出願を基礎に予備審査が開始され、2) 国際予備審査機関が、見解書又は予備審査報告書の作成開始前に補正（原本又は写し）を受領したときは、これらの補正を考慮して予備審査が開始又は続行される。

国際予備審査を行うための言語は、日本語 であり、

- ☒ 国際出願の提出時の言語である。
- ☐ 国際調査のために提出した翻訳文の言語である。
- ☐ 国際出願の公開の言語である。
- ☐ 国際予備審査の目的のために提出した翻訳文の言語である。

## 第V欄 国の選択

出願人は、選択資格のある全ての指定国（即ち、既に出願人によって指定されており、かつ特許協力条約第II章に拘束されている国）を選択する。

ただし、出願人は次の国の選択を希望しない。： .....

## 第VI欄 照合欄

この国際予備審査請求書には、国際予備審査のために、第IVに記載する書類による書類が添付されている。

1. 国際出願の翻訳文・・・・・・・・・・・・・・・・・・・・・・・・・枚
2. 特許協力条約第34条の規定に基づく補正書・・・・・・・・・・・・・・・・・枚
3. 特許協力条約第19条の規定に基づく補正書  
(又は、要求された場合は翻訳文)の写し・・・・・・・・・・・・・・・・・枚
4. 特許協力条約第19条の規定に基づく説明書  
(又は、要求された場合は翻訳文)の写し・・・・・・・・・・・・・・・・・枚
5. 書簡・・・枚
6. その他(書類名を具体的に記載する)：・・・・・・・・・・・・・・・・・枚

## 国際予備審査機関記入欄

受 領

未 受 領

☐☐☐☐☐☐☐☐☐☐☐☐

この国際予備審査請求書には、さらに下記の書類が添付されている。

1. ☒ 手数料計算用紙
2. ☐ 別個の記名押印された委任状
3. ☐ 包括委任状の写し
4. ☐ 記名押印(署名)に関する説明書
5. ☐ スクリーンオチド又はアミノ酸配列表  
(フレキシブルディスク)
6. ☐ その他(書類名を具体的に記載する)：

## 第VII欄 提出者の記名押印

各人の氏名(名称)を記載し、その次に押印する。

池内 寛幸



佐藤 公博



## 国際予備審査機関記入欄

1. 国際予備審査請求書の実際の受理の日

2. 規則 80.1(b)の規定による国際予備審査請求書の受理の日の訂正後の日付

3. ☐ 優先日から19月を経過後の国際予備審査請求書の受理。ただし、以下の4、5の項目にはあてはまらない。

☐ 出願人に通知した。

4. ☐ 規則 80.5により延長が認められている優先日から19月の期間内の国際予備審査請求書の受理

5. ☐ 優先日から19月を経過後の国際予備審査請求書の受理であるが規則82により認められる。

## 国際事務局記入欄

国際予備審査請求書の国際予備審査機関からの受理の日：

特 許 協 力 条 約

PCT

国際予備審査報告

(法第12条、法施行規則第56条)  
[PCT36条及びPCT規則70]

出願人又は代理人 の書類記号 H702-01	今後の手続きについては、国際予備審査報告の送付通知(様式PCT/ IPEA/416)を参照すること。	
国際出願番号 PCT/JPO0/00984	国際出願日 (日.月.年) 21.02.00	優先日 (日.月.年) 22.02.99
国際特許分類(IPC) Int. Cl <sup>7</sup> C12N9/48, C12N1/20, C12Q1/37		
出願人(氏名又は名称) アークレイ株式会社		

1. 国際予備審査機関が作成したこの国際予備審査報告を法施行規則第57条(PCT36条)の規定に従い送付する。
2. この国際予備審査報告は、この表紙を含めて全部で 4 ページからなる。  <input type="checkbox"/> この国際予備審査報告には、附属書類、つまり補正されて、この報告の基礎とされた及び/又はこの国際予備審査機関に対してした訂正を含む明細書、請求の範囲及び/又は図面も添付されている。 (PCT規則70.16及びPCT実施細則第607号参照) この附属書類は、全部で _____ ページである。
3. この国際予備審査報告は、次の内容を含む。  I <input checked="" type="checkbox"/> 国際予備審査報告の基礎 II <input type="checkbox"/> 優先権 III <input type="checkbox"/> 新規性、進歩性又は産業上の利用可能性についての国際予備審査報告の不作成 IV <input type="checkbox"/> 発明の単一性の欠如 V <input checked="" type="checkbox"/> PCT35条(2)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明 VI <input type="checkbox"/> ある種の引用文献 VII <input type="checkbox"/> 国際出願の不備 VIII <input checked="" type="checkbox"/> 国際出願に対する意見

国際予備審査の請求書を受理した日 04.09.00	国際予備審査報告を作成した日 22.01.01	
名称及びあて先 日本国特許庁(IPEA/JP) 郵便番号100-8915 東京都千代田区霞が関三丁目4番3号	特許庁審査官(権限のある職員) 平田 和男	4N 7823
電話番号 03-3581-1101 内線 3448		

## I. 国際予備審査報告の基礎

1. この国際予備審査報告は下記の出願書類に基づいて作成された。(法第6条(PCT 14条)の規定に基づく命令に  
 応答するために提出された差し替え用紙は、この報告書において「出願時」とし、本報告書には添付しない。  
 PCT規則70.16, 70.17)

☒ 出願時の国際出願書類

- |                                     |         |        |                       |
|-------------------------------------|---------|--------|-----------------------|
| <input type="checkbox"/> 明細書        | 第 _____ | ページ、   | 出願時に提出されたもの           |
| <input type="checkbox"/> 明細書        | 第 _____ | ページ、   | 国際予備審査の請求書と共に提出されたもの  |
| <input type="checkbox"/> 明細書        | 第 _____ | ページ、   | 付の書簡と共に提出されたもの        |
|                                     |         |        |                       |
| <input type="checkbox"/> 請求の範囲      | 第 _____ | 項、     | 出願時に提出されたもの           |
| <input type="checkbox"/> 請求の範囲      | 第 _____ | 項、     | PCT 19条の規定に基づき補正されたもの |
| <input type="checkbox"/> 請求の範囲      | 第 _____ | 項、     | 国際予備審査の請求書と共に提出されたもの  |
| <input type="checkbox"/> 請求の範囲      | 第 _____ | 項、     | 付の書簡と共に提出されたもの        |
|                                     |         |        |                       |
| <input type="checkbox"/> 図面         | 第 _____ | ページ/図、 | 出願時に提出されたもの           |
| <input type="checkbox"/> 図面         | 第 _____ | ページ/図、 | 国際予備審査の請求書と共に提出されたもの  |
| <input type="checkbox"/> 図面         | 第 _____ | ページ/図、 | 付の書簡と共に提出されたもの        |
|                                     |         |        |                       |
| <input type="checkbox"/> 明細書の配列表の部分 | 第 _____ | ページ、   | 出願時に提出されたもの           |
| <input type="checkbox"/> 明細書の配列表の部分 | 第 _____ | ページ、   | 国際予備審査の請求書と共に提出されたもの  |
| <input type="checkbox"/> 明細書の配列表の部分 | 第 _____ | ページ、   | 付の書簡と共に提出されたもの        |

2. 上記の出願書類の言語は、下記に示す場合を除くほか、この国際出願の言語である。

上記の書類は、下記の言語である \_\_\_\_\_ 語である。

- ☐ 国際調査のために提出されたPCT規則23.1(b)にいう翻訳文の言語  
☐ PCT規則48.3(b)にいう国際公開の言語  
☐ 国際予備審査のために提出されたPCT規則55.2または55.3にいう翻訳文の言語

3. この国際出願は、ヌクレオチド又はアミノ酸配列を含んでおり、次の配列表に基づき国際予備審査報告を行った。

- ☐ この国際出願に含まれる書面による配列表  
☐ この国際出願と共に提出されたフレキシブルディスクによる配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出された書面による配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出されたフレキシブルディスクによる配列表  
☐ 出願後に提出した書面による配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述書の提出があった  
☐ 書面による配列表に記載した配列とフレキシブルディスクによる配列表に記載した配列が同一である旨の陳述書の提出があった。

4. 補正により、下記の書類が削除された。

- ☐ 明細書 第 \_\_\_\_\_ ページ  
☐ 請求の範囲 第 \_\_\_\_\_ 項  
☐ 図面 図面の第 \_\_\_\_\_ ページ/図

5. ☐ この国際予備審査報告は、補充欄に示したように、補正が出願時における開示の範囲を越えてされたものと認められるので、その補正がされなかったものとして作成した。(PCT規則70.2(c) この補正を含む差し替え用紙は上記1.における判断の際に考慮しなければならず、本報告に添付する。)

## V. 新規性、進歩性又は産業上の利用可能性についての法第12条(PCT35条(2))に定める見解、それを裏付ける文献及び説明

## 1. 見解

新規性(N)

請求の範囲 1-15

有

請求の範囲

無

進歩性(I S)

請求の範囲 1-15

有

請求の範囲

無

産業上の利用可能性(I A)

請求の範囲 1-15

有

請求の範囲

無

## 2. 文献及び説明(PCT規則70.7)

国際調査報告で引用された文献1 (US, 5370990, A(Genzyme UK LTD.)1994.12.03,)、文献2 (SHIN, S-W. 'Identification of the Protease Producing Bacteria to Use Fish Meal Wastewater and the Producing Conditions for the Enzyme.' Bull. Korean Fish. Soc., 1989, Vol.22, No.3, pages 138 to 146) に記載されたプロテアーゼが、 $\alpha$ アミノ基が糖化された末端アミノ酸残基を遊離するものか記載がなく、また、該プロテアーゼが $\alpha$ アミノ基が糖化された末端アミノ酸残基を遊離することが当業者にとって自明でもない。

## Ⅷ. 国際出願に対する意見

請求の範囲、明細書及び図面の明瞭性又は請求の範囲の明細書による十分な裏付についての意見を次に示す。

請求項 1 に記載される新規酵素として明細書に十分な裏付けをもって記載されるのはコリネバクテリウム属及びシュードモナス属の菌体由来のものだけである。

## PCT REQUEST

Draft (NOT for submission) - printed on 10.08.2001 05:39:09 PM

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92 (updated 01.03.2001)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Japan Patent Office (RO/JP)
0-7	Applicant's or agent's file reference	H702-01 E
I	Title of invention	NOVEL ENZYME
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name	KYOTO DAIICHI KAGAKU CO., LTD
II-5	Address:	57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
II-6	State of nationality	JP
II-7	State of residence	JP
II-8	Telephone No.	+81-75-662-8956
II-9	Facsimile No.	+81-75-662-8969
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	ISHIMARU, Kaori
III-1-5	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-1-6	State of nationality	JP
III-1-7	State of residence	JP



## PCT REQUEST

Draft (NOT for submission) - printed on 10.08.2001 05:39:09 PM

III-2	<b>Applicant and/or inventor</b>	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	YAGI, Masayuki
III-2-5	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-2-6	State of nationality	JP
III-2-7	State of residence	JP
III-3	<b>Applicant and/or inventor</b>	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	YONEHARA, Satoshi
III-3-5	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-3-6	State of nationality	JP
III-3-7	State of residence	JP
IV-1	<b>Agent or common representative; or address for correspondence</b> The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	IKEUCHI, Hiroyuki
IV-1-2	Address:	Suite 401, UMEDA PLAZA Building, 3-25, Nishitenma 4-chome, Kita-ku Osaka-shi, Osaka 530-0047 Japan
IV-1-3	Telephone No.	+81-6-6361-9334
IV-1-4	Facsimile No.	+81-6-6361-9335
IV-2	<b>Additional agent(s)</b>	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	SATO, Kimihiro

## PCT REQUEST

H702-01 E

Draft (NOT for submission) - printed on 10.08.2001 05:39:09 PM

<b>V</b>	<b>Designation of States</b>	
<b>V-1</b>	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE CH&amp;LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT (except TR)</p> <p>OA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
<b>V-2</b>	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&amp;LI CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW</p>
<b>V-5</b>	<b>Precautionary Designation Statement</b>  In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
<b>V-6</b>	<b>Exclusion(s) from precautionary designations</b>	NONE
<b>VI-1</b>	<b>Priority claim of earlier national application</b>	
VI-1-1	Filing date	22 February 1999 (22.02.1999)
VI-1-2	Number	Patent Application 11-042926
VI-1-3	Country	JP

## PCT REQUEST

H702-01 E

Draft (NOT for submission) - printed on 10.08.2001 05:39:09 PM

<b>VI-2</b>	<b>Priority claim of earlier national application</b>		
VI-2-1	Filing date	12 April 1999 (12.04.1999)	
VI-2-2	Number	Patent Application 11-142186	
VI-2-3	Country	JP	
<b>VI-3</b>	<b>Priority document request</b>		
	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1, VI-2	
<b>VII-1</b>	<b>International Searching Authority Chosen</b>	Japan Patent Office (JPO) (ISA/JP)	
<b>VIII</b>	<b>Declarations</b>	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
<b>IX</b>	<b>Check list</b>	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	5	-
IX-2	Description	38	-
IX-3	Claims	2	-
IX-4	Abstract	1	h702-01abstract.txt
IX-5	Drawings	10	-
IX-7	TOTAL	56	
	<b>Accompanying items</b>	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-9	Original separate power of attorney	✓	-
IX-15	Separate indications concerning deposited microorganism or other biological material	✓	-
IX-17	PCT-EASY diskette	-	Diskette
IX-19	Figure of the drawings which should accompany the abstract	1	
IX-20	Language of filing of the international application	Japanese	
<b>X-1</b>	<b>Signature of applicant, agent or common representative</b>		
X-1-1	Name (LAST, First)	IKEUCHI, Hiroyuki	

## PCT REQUEST

H702-01 E

Draft (NOT for submission) - printed on 10.08.2001 05:39:09 PM

X-2	Signature of applicant, agent or common representative	
X-2-1	Name (LAST, First)	SATO, Kimihiro

## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/JP
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
------	--	--

Draft (NOT for submission) - printed on 10.08.2001 05:30:02 PM

0-1	Form - PCT/RO/134 (EASY) Indications Relating to Deposited Microorganism(s) or Other Biological Material (PCT Rule 13bis) Prepared using	PCT-EASY Version 2.92 (updated 01.03.2001)
0-2	International Application No.	
0-3	Applicant's or agent's file reference	H702-01 E
1	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
1-1	page	5
1-2	line	4
1-3	Identification of Deposit	
1-3-1	Name of depositary institution	National Institute of Bioscience and Human-Technology
1-3-2	Address of depositary institution	1-3, Higashi 1-chome, Tsukuba-shi, Ibaraki 305-0046 JAPAN
1-3-3	Date of deposit	11 January 1999 (11.01.1999)
1-3-4	Accession Number	NIBH FERM P-17133
1-4	Additional Indications	NONE
1-5	Designated States for Which Indications are Made	all designated States
1-6	Separate Furnishing of Indications  These indications will be submitted to the International Bureau later	NONE
2	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
2-1	page	3
2-2	line	16
2-3	Identification of Deposit	
2-3-1	Name of depositary institution	National Institute of Bioscience and Human-Technology
2-3-2	Address of depositary institution	1-3, Higashi 1-chome, Tsukuba-shi, Ibaraki 305-0046 JAPAN
2-3-3	Date of deposit	11 January 1999 (11.01.1999)
2-3-4	Accession Number	NIBH FERM P-17135
2-4	Additional Indications	NONE
2-5	Designated States for Which Indications are Made	all designated States
2-6	Separate Furnishing of Indications  These indications will be submitted to the International Bureau later	NONE

PCT

H702-01 E

Draft (NOT for submission) - printed on 10.08.2001 05:30:02 PM

**FOR RECEIVING OFFICE USE ONLY**

0-4	This form was received with the international application: (yes or no)	
0-4-1	Authorized officer	

**FOR INTERNATIONAL BUREAU USE ONLY**

0-5	This form was received by the international Bureau on:	
0-5-1	Authorized officer	

## 特許協力条約に基づく国際出願願書

H702-01

原本（出願用） - 印刷日時 2000年02月18日（18.02.2000）金曜日 15時06分29秒

0	受理官庁記入欄	
0-1	国際出願番号.	
0-2	国際出願日	
0-3	(受付印)	
0-4	様式-PCT/RO/101 この特許協力条約に基づく国際出願願書は、 0-4-1 右記によって作成された。	PCT-EASY Version 2.90 (updated 15.12.1999)
0-5	申立て 出願人は、この国際出願が特許協力条約に従って処理されることを請求する。	
0-6	出願人によって指定された受理官庁	日本国特許庁 (RO/JP)
0-7	出願人又は代理人の書類記号	H702-01
I	発明の名称	新規酵素
II	出願人	
II-1	この欄に記載した者は	出願人である (applicant only)
II-2	右の指定国についての出願人である。	米国を除くすべての指定国 (all designated States except US)
II-4ja	名称	株式会社京都第一科学
II-4en	Name	KYOTO DAIICHI KAGAKU CO., LTD
II-5ja	あて名:	601-8045 日本国
II-5en	Address:	京都府 京都市 南区東九条西明田町57番地 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
II-6	国籍 (国名)	日本国 JP
II-7	住所 (国名)	日本国 JP
II-8	電話番号	+81-75-662-8956
II-9	ファクシミリ番号	+81-75-662-8969

## 特許協力条約に基づく国際出願願書

原本（出願用） - 印刷日時 2000年02月18日（18.02.2000）金曜日 15時06分29秒

III-1 III-1-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-1-2	右の指定国についての出願人である。	
III-1-4ja	氏名(姓名)	石丸 香
III-1-4en	Name (LAST, First)	ISHIMARU, Kaori
III-1-5ja	あて名:	601-8045 日本国 京都府 京都市 南区東九条西明田町57番地 株式会社京都第一科学内
III-1-5en	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-1-6	国籍 (国名)	日本国 JP
III-1-7	住所 (国名)	日本国 JP
III-2 III-2-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-2-2	右の指定国についての出願人である。	
III-2-4ja	氏名(姓名)	八木 雅之
III-2-4en	Name (LAST, First)	YAGI, Masayuki
III-2-5ja	あて名:	601-8045 日本国 京都府 京都市 南区東九条西明田町57番地 株式会社京都第一科学内
III-2-5en	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-2-6	国籍 (国名)	日本国 JP
III-2-7	住所 (国名)	日本国 JP
III-3 III-3-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-3-2	右の指定国についての出願人である。	
III-3-4ja	氏名(姓名)	米原 聡
III-3-4en	Name (LAST, First)	YONEHARA, Satoshi
III-3-5ja	あて名:	601-8045 日本国 京都府 京都市 南区東九条西明田町57番地 株式会社京都第一科学内
III-3-5en	Address:	c/o KYOTO DAIICHI KAGAKU CO., LTD 57, Nishiaketa-cho, Higashikujo, Minami-ku Kyoto-shi, Kyoto 601-8045 Japan
III-3-6	国籍 (国名)	日本国 JP
III-3-7	住所 (国名)	日本国 JP



## 特許協力条約に基づく国際出願願書



原本（出願用） - 印刷日時 2000年02月18日（18.02.2000）金曜日 15時06分29秒

IV-1	代理人又は共通の代表者、通知のあて名 下記の者は国際機関において右記のごとく出願人のために行動する。	代理人 (agent)
IV-1-1ja	氏名(姓名)	池内 寛幸
IV-1-1en	Name (LAST, First)	IKEUCHI, Hiroyuki
IV-1-2ja	あて名:	530-0047 日本国 大阪府 大阪市 北区西天満4丁目3番25号梅田プラザビル401号室
IV-1-2en	Address:	Suite 401, UMEDA PLAZA Building, 3-25, Nishitenma 4-chome, Kita-ku Osaka-shi, Osaka 530-0047 Japan
IV-1-3	電話番号	+81-6-6361-9334
IV-1-4	ファクシミリ番号	+81-6-6361-9335
IV-2	その他の代理人	筆頭代理人と同じあて名を有する代理人 (additional agent(s) with same address as first named agent)
IV-2-1ja	氏名	佐藤 公博
IV-2-1en	Name(s)	SATO, Kimihiro
V	国の指定	
V-1	広域特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	AP: GH GM KE LS MW SD SL SZ TZ UG ZW 及びハラレプロトコルと特許協力条約の締約国である他の国 EA: AM AZ BY KG KZ MD RU TJ TM 及びユーラシア特許条約と特許協力条約の締約国である他の国 EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE 及びヨーロッパ特許条約と特許協力条約の締約国である他の国 OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG 及びアフリカ知的所有権 機構と特許協力条約の締約国である他の国
V-2	国内特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	AE AL AM AT AU AZ BA BB BG BR BY CA CH&LI CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
V-5	指定の確認の宣言 出願人は、上記の指定に加えて、規則4.9(b)の規定に基づき、特許協力条約のもとで認められる他の全ての国の指定を行う。ただし、V-6欄に示した国の指定を除く。出願人は、これらの追加される指定が確認を条件としていること、並びに優先日から15月が経過する前にその確認がなされない指定は、この期間の経過時に、出願人によって取り下げられたものとみなされることを宣言する。	
V-6	指定の確認から除かれる国	なし (NONE)

## 特許協力条約に基づく国際出願願書

原本(出願用) - 印刷日時 2000年02月18日 (18.02.2000) 金曜日 15時06分29秒

H702-01

VI-1	先の国内出願に基づく優先権主張		
VI-1-1	先の出願日	1999年02月22日 (22.02.1999)	
VI-1-2	先の出願番号	特願平11-042926	
VI-1-3	国名	日本国 JP	
VI-2	先の国内出願に基づく優先権主張		
VI-2-1	先の出願日	1999年04月12日 (12.04.1999)	
VI-2-2	先の出願番号	特願平11-142186	
VI-2-3	国名	日本国 JP	
VI-3	優先権 証明書送付の請求 上記の先の出願のうち、右記の番号のものについては、出願書類の認証謄本を作成し国際事務局へ送付することを、受理官庁に対して請求している。	VI-1, VI-2	
VII-1	特定された国際調査機関(ISA)	日本国特許庁 (ISA/JP)	
VIII	照合欄	用紙の枚数	添付された電子データ
VIII-1	願書	5	-
VIII-2	明細書	38	-
VIII-3	請求の範囲	2	-
VIII-4	要約	1	h702-01abstract.txt
VIII-5	図面	10	-
VIII-7	合計	56	
VIII-8	添付書類	添付	添付された電子データ
VIII-8	手数料計算用紙	✓	-
VIII-9	別個の記名押印された委任状	✓	-
VIII-14	寄託した微生物又は生物材料に関する書面	✓	-
VIII-16	PCT-EASYディスク	-	フレキシブルディスク
VIII-18	要約書とともに提示する図の番号	1	
VIII-19	国際出願の使用言語名:	日本語 (Japanese)	
IX-1	提出者の記名押印		
IX-1-1	氏名(姓名)	池内 寛幸	
IX-2	提出者の記名押印		
IX-2-1	氏名(姓名)	佐藤 公博	

## 受理官庁記入欄

10-1	国際出願として提出された書類の実際の受理の日	
10-2	図面:	
10-2-1	受理された	
10-2-2	不足図面がある	
10-3	国際出願として提出された書類を補完する書類又は図面であってその後期間内に提出されたものの実際の受理の日(訂正日)	
10-4	特許協力条約第II条(2)に基づく必要な補完の期間内の受理の日	

## 特許協力条約に基づく国際出願願書

H702-01

原本（出願用） - 印刷日時 2000年02月18日（18.02.2000）金曜日 15時06分29秒

10-5	出願人により特定された国際調査機関	ISA/JP
10-6	調査手数料未払いにつき、国際調査機関に調査用写しを送付していない	

## 国際事務局記入欄

11-1	記録原本の受理の日	
------	-----------	--

0-1	様式-PCT/RO/134 (EASY) この寄託された微生物又はその他の生物材料に関する表示 (PCT規則13の2)は、 右記によって作成された。	PCT-EASY Version 2.90 (updated 15.12.1999)
0-1-1		
0-2	国際出願番号.	
0-3	出願人又は代理人の書類記号	H702-01
1	下記の表示は発明の詳細な説明中に記載された微生物又は生物材料に関連している。	
1-1	記載頁	5
1-2	行	4
1-3	寄託の表示	
1-3-1	寄託機関の名称	通商産業省・工業技術院生命工学技術研究所 (NIBH)
1-3-2	寄託機関のあて名	日本国 〒305-0046 茨城県つくば市東1丁目1-3
1-3-3	寄託の日付	1999年01月11日 (11.01.1999)
1-3-4	受託番号	NIBH FERM P-17133
1-4	追加の表示	なし (NONE)
1-5	この表示を行うための指定国	すべての指定国
1-6	追加事項の表示の届け出 右記の表示は後に国際事務局に届け出る予定である。	なし (NONE)
2	下記の表示は発明の詳細な説明中に記載された微生物又は生物材料に関連している。	
2-1	記載頁	3
2-2	行	16
2-3	寄託の表示	
2-3-1	寄託機関の名称	通商産業省・工業技術院生命工学技術研究所 (NIBH)
2-3-2	寄託機関のあて名	日本国 〒305-0046 茨城県つくば市東1丁目1-3
2-3-3	寄託の日付	1999年01月11日 (11.01.1999)
2-3-4	受託番号	NIBH FERM P-17135
2-4	追加の表示	なし (NONE)
2-5	この表示を行うための指定国	すべての指定国
2-6	追加事項の表示の届け出 右記の表示は後に国際事務局に届け出る予定である。	なし (NONE)
受理官庁記入欄		
0-4	この用紙は国際出願とともに受理した (はい/いいえ)	

PCT

H702-01

原本（出願用） - 印刷日時 2000年02月18日（18.02.2000）金曜日 15時06分29秒

0-4-1	権 限のあ る職員	
-------	-----------	--

## 国際事務局記入欄

0-5	この用紙が国際事務局に受理 された日	
0-5-1	権 限のあ る職員	

PCT

E P



国際調査報告

(法8条、法施行規則第40、41条)  
〔PCT18条、PCT規則43、44〕

出願人又は代理人 の書類記号 H702-01	今後の手続きについては、国際調査報告の送付通知様式(PCT/ISA/220)及び下記5を参照すること。	
国際出願番号 PCT/JPO0/00984	国際出願日 (日.月.年) 21.02.00	優先日 (日.月.年) 22.02.99
出願人(氏名又は名称) 株式会社京都第一科学		

国際調査機関が作成したこの国際調査報告を法施行規則第41条(PCT18条)の規定に従い出願人に送付する。  
この写しは国際事務局にも送付される。

この国際調査報告は、全部で 3 ページである。

☐ この調査報告に引用された先行技術文献の写しも添付されている。

#### 1. 国際調査報告の基礎

a. 言語は、下記に示す場合を除くほか、この国際出願がされたものに基づき国際調査を行った。

☐ この国際調査機関に提出された国際出願の翻訳文に基づき国際調査を行った。

b. この国際出願は、ヌクレオチド又はアミノ酸配列を含んでおり、次の配列表に基づき国際調査を行った。

☐ この国際出願に含まれる書面による配列表

☐ この国際出願と共に提出されたフレキシブルディスクによる配列表

☐ 出願後に、この国際調査機関に提出された書面による配列表

☐ 出願後に、この国際調査機関に提出されたフレキシブルディスクによる配列表

☐ 出願後に提出した書面による配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述書の提出があった。

☐ 書面による配列表に記載した配列とフレキシブルディスクによる配列表に記録した配列が同一である旨の陳述書の提出があった。

2. ☐ 請求の範囲の一部の調査ができない(第I欄参照)。

3. ☐ 発明の単一性が欠如している(第II欄参照)。

4. 発明の名称は ☒ 出願人が提出したものを承認する。

☐ 次に示すように国際調査機関が作成した。

5. 要約は ☒ 出願人が提出したものを承認する。

☐ 第III欄に示されているように、法施行規則第47条(PCT規則38.2(b))の規定により国際調査機関が作成した。出願人は、この国際調査報告の発送の日から1カ月以内にこの国際調査機関に意見を提出することができる。

6. 要約書とともに公表される図は、

第 1 図とする。 ☒ 出願人が示したとおりである。

☐ なし

☐ 出願人は図を示さなかった。

☐ 本図は発明の特徴を一層よく表している。

## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> C12N9/48, C12N1/20, C12Q1/37

## B. 調査を行った分野

調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl<sup>7</sup> C12N9/48, C12N1/20, C12Q1/37

最小限資料以外の資料で調査を行った分野に含まれるもの

国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

Biosis Previews (Dialog)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
<u>X</u> <u>Y</u> A	US, 5370990, A (Genzyme UK LTD.) 1994. 12. 03, column 3, lines 31 to 37 & EP, 526150, A & AU, 9220457, A & CA, 2074772, A & JP, 5-192193, A & DE, 69 211439, E	1, 6-9 2, 4, 10, 12 3, 5, 11, 13-15
<u>Y</u> A	SHIN, S-W. 'Identification of the Protease Producing Bacteria to Use Fish Meal Wastewater and the Producing Conditions for the Enzyme.' Bull. Korean Fish. Soc., 1989, Vol. 22, No. 3, pages 138 to 146	4, 12 5, 13

☒ C欄の続きにも文献が列举されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

- 「A」 特に関連のある文献ではなく、一般的技术水準を示すもの  
「E」 国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの  
「L」 優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)  
「O」 口頭による開示、使用、展示等に言及する文献  
「P」 国際出願日前で、かつ優先権の主張の基礎となる出願

## の日の後に公表された文献

- 「T」 国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの  
「X」 特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの  
「Y」 特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの  
「&」 同一パテントファミリー文献

国際調査を完了した日

09. 05. 00

国際調査報告の発送日

06.06.00

国際調査機関の名称及びあて先

日本国特許庁 (ISA/JP)

郵便番号 100-8915

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

平田 和男



4 B

7823

電話番号 03-3581-1101 内線 3448

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
<u>Y</u> A	JP, 63-279782, A (Onoda Cement CO. LTD.) 1988. 11. 16, (ファミリーなし)	2, 10 3, 11
<u>Y</u> A	JP, 50-019628, B1 (Sumitomo Chem. Ind. KK.) 1975. 07. 08, (ファミリーなし)	4, 12 5, 13



Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H702-01	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)
International Patent Classification (IPC) or national classification and IPC C12N 9/48, 1/20, C12Q 1/37		
Applicant ARKRAY, INC.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input checked="" type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 04 September 2000 (04.09.00)	Date of completion of this report 22 January 2001 (22.01.2001)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/00984

## I. Basis of the report

1. With regard to the **elements** of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/00984

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

**2. Citations and explanations**

Document 1 [US, 5370990, A (Genzyme UK Ltd.), 3 December, 1994 (03.12.94)], document 2 [Shin, S-W, "Identification of the Protease Producing Bacteria to Use Fish Meal Waste Water and the Producing Conditions for the Enzyme," Bull. Korean Fish. Soc., 1989, Vol.22, No.3, pages 138-146] cited in the ISR do not show whether the protease described therein releases an end group of amino acid residue having a saccharified  $\alpha$ -amino group, and it is not considered to be obvious to a person skilled in the art that the said protease releases an end group of amino acid residue having a saccharified  $\alpha$ -amino group.

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

**PCT/JP00/00984**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

As novel enzymes described in the claim 1, only those which are originated from *Corynebacterium* and *Pseudomonas* are fully supported by the specification.

## PATENT COOPERATION TREATY

## PCT


NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON

Date of mailing (day/month/year) 01 June 2001 (01.06.01)		<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference H702-01		
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)	
Applicant ARKRAY, INC. et al		

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

**2. Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

EP,AT,AU,CA,CH,CN,CZ,FI,NO,NZ,PL,RO,RU,SK,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AP,EA,AE,AL,AM,AZ,BA,BB,BG,BR,BY,CR,CU,DE,DK,DM,EE,ES,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,PT,SD,SE,SG,SI,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW,OA

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  Eliott Peretti  Telephone No. (41-22) 338.83.38
--	---

**Translation**

PATENT COOPERATION TREATY

**PCT**

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H702-01	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)
International Patent Classification (IPC) or national classification and IPC C12N 9/48, 1/20, C12Q 1/37		
Applicant ARKRAY, INC.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input checked="" type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 04 September 2000 (04.09.00)	Date of completion of this report 22 January 2001 (22.01.2001)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/00984

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

**2. Citations and explanations**

Document 1 [US, 5370990, A (Genzyme UK Ltd.), 3 December, 1994 (03.12.94)], document 2 [Shin, S-W, "Identification of the Protease Producing Bacteria to Use Fish Meal Waste Water and the Producing Conditions for the Enzyme," Bull. Korean Fish. Soc., 1989, Vol.22, No.3, pages 138-146] cited in the ISR do not show whether the protease described therein releases an end group of amino acid residue having a saccharified  $\alpha$ -amino group, and it is not considered to be obvious to a person skilled in the art that the said protease releases an end group of amino acid residue having a saccharified  $\alpha$ -amino group.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/00984

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

As novel enzymes described in the claim 1, only those which are originated from *Corynebacterium* and *Pseudomonas* *somas* are fully supported by the specification.





P.B.5818 - Patentlaan 2  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Europäisches  
Patentamt

Eingangs-  
stelle

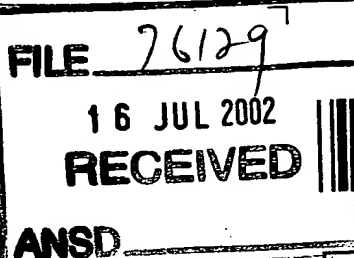
European  
Patent Office

Receiving  
Section

Office européen  
des brevets

Section de  
Dépôt

Campbell, Neil Boyd  
Frank B. Dehn & Co.,  
179 Queen Victoria Street  
London EC4V 4EL  
GRANDE BRETAGNE



Datum/Date

12-07-2002

22

Zeichen/Ref./Réf.

3.1.76129

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.

00904078.3-2406- PCT/JP0000984

Anmelder/Applicant/Demandeur/Patentinhaber/Propriétaire/Titulaire

ARKRAY, Inc.

PROCEEDING FURTHER WITH THE EUROPEAN PATENT APPLICATION PURSUANT TO  
ARTICLE 96(1) AND RULE 51(1) EPC

A supplementary European search report has been drawn up concerning  
the above European patent application (publication no. 1156105).

Since you have filed a request for examination prior to the trans-  
mission of the supplementary European search report, you are hereby  
invited to indicate within

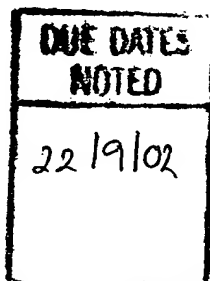
TWO MONTHS

of notification of this invitation whether you desire to proceed  
further with the European patent application.

If you do not indicate in due time that you desire to proceed further  
with the European patent application, it will be deemed to be withdrawn  
(Art. 96(3) EPC).

If you wish you may comment on the supplementary European search report  
and amend, where appropriate, the description, claims and drawings  
(Rule 51(1) EPC).

RECEIVING SECTION



REGISTERED LETTER

EPO Form 1224 04.85

00904078.3 DMEX

7001007 27/06/02

005

..... M02



P.B.5818 - Patentlaan 2  
2280 HV Rijswijk (ZH)  
☎ +31 70 340 2040  
TX 31651 epo nl  
FAX +31 70 340 3016

Europäisches  
Patentamt

Zweigstelle  
in Den Haag  
Recherchen-  
abteilung

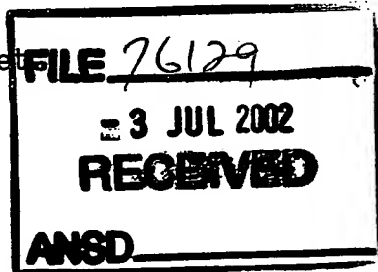
European  
Patent Office

Branch at  
The Hague  
Search  
division

Office européen  
des brevets

Département à  
La Haye  
Division de la  
recherche

Campbell, Neil Boyd  
Frank B. Dehn & Co.,  
179 Queen Victoria Street  
London EC4V 4EL  
GRANDE BRETAGNE



Datum/Date

03.07.02

Zeichen/Ref./Réf. 3.1.76129	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 00904078.3-2406-JP0000984
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire ARKRAY, Inc.	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





European Patent  
Office

**SUPPLEMENTARY  
PARTIAL EUROPEAN SEARCH REPORT**

Application Number

which under Rule 45 of the European Patent Convention shall be considered, for the purposes of subsequent proceedings, as the European search report

EP 00 90 4078

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	YOSHIDA N ET AL: "Primary structures of fungal fructosyl amino acid oxidases and their application to the measurement of glycosylated proteins" EUROPEAN JOURNAL OF BIOCHEMISTRY, BERLIN, DE, vol. 242, no. 3, 15 December 1996 (1996-12-15), pages 499-505, XP002089646 ISSN: 0014-2956 * table 2 *	1-15	C12N9/48 C12N1/20 C12Q1/37
Y	GERHARDINGER CHIARA ET AL: "Isolation, purification, and characterization of an amadori product binding protein from a Pseudomonas sp. soil strain." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 269, no. 44, 1994, pages 27297-27302, XP002200334 ISSN: 0021-9258 * the whole document *	1-15	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C12N
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
<b>INCOMPLETE SEARCH</b>			
The Search Division considers that the present application, or some or all of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for the following claims:			
Claims searched completely :			
Claims searched incompletely :			
Claims not searched :			
Reason for the limitation of the search:			
see sheet C			
Place of search		Date of completion of the search	Examiner
MUNICH		17 June 2002	Weigl, M
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : technological background O : non-written disclosure P : intermediate document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category		& : member of the same patent family, corresponding document	

6

EPO FORM 1503 03.82 (P04C20)



Claim(s) searched incompletely:  
1, 2, 4, 6, 7-10, 12

Reason for the limitation of the search:

Present claims 1, 2, 4, 6, 7-10 and 12 relate to a product defined by reference to a desirable characteristic or property, namely an enzyme that releases an amino acid having a glycosylated alpha-amino group from a glycosylated protein or a glycosylated peptide.

The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC for only a very limited number of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 84 EPC). An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible since it would require a minimum of structural information. The functional feature 'that releases an amino acid having a glycosylated alpha-amino group from a glycosylated protein or a glycosylated peptide' may be an inherent known or unknown feature of any known or unknown protein. Similarly, the ability to produce such an enzyme may be an inherent known or unknown feature of any known or unknown strain of the genus *Corynebacterium* or *Pseudomonas*. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those enzymes and bacterial strains prepared in the examples.

Copy for the Elected Office (EO/US;  
**ATENT COOPERATION TRL TY**

PCT/JP00/00984

**PCT**

**NOTIFICATION OF THE RECORDING  
 OF A CHANGE**

(PCT Rule 92bis.1 and  
 Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki  
 Suite 401, Umeda Plaza Building  
 3-25, Nishitenma 4-chome, Kita-ku  
 Osaka-shi, Osaka 530-0047  
 JAPON

Date of mailing (day/month/year) 01 November 2000 (01.11.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference H702-01	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)

1. The following indications appeared on record concerning:  
☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address 1) ISHIMARU, Kaori 2) YAGI, Masayuki 3) YONEHARA, Satoshi Kyoto Daiichi Kagaku Co., Ltd 57, Nishiaketa-cho, Higashikujo Minami-ku Kyoto-shi, Kyoto 601-8045 Japan	State of Nationality JP	State of Residence JP
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:  
☐ the person ☐ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address 1) ISHIMARU, Kaori 2) YAGI, Masayuki 3) YONEHARA, Satoshi Arkray, Inc. 57, Nishiaketa-cho, Higashikujo Minami-ku Kyoto-shi, Kyoto 601-8045 Japan	State of Nationality JP	State of Residence JP
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☐ the designated Offices concerned  
☐ the International Searching Authority ☒ the elected Offices concerned  
☒ the International Preliminary Examining Authority ☐ other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Shinji IGARASHI Telephone No.: (41-22) 338.83.38
---	---

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki  
Suite 401, Umeda Plaza Building  
3-25, Nishitenma 4-chome, Kita-ku  
Osaka-shi, Osaka 530-0047  
JAPON

Date of mailing (day/month/year) 01 November 2000 (01.11.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference H702-01	
International application No. PCT/JP00/00984	International filing date (day/month/year) 21 February 2000 (21.02.00)

1. The following indications appeared on record concerning:
- ☒ the applicant      ☐ the inventor      ☐ the agent      ☐ the common representative

Name and Address

KYOTO DAIICHI KAGAKU CO., LTD  
57, Nishiaketa-cho, Higashikujo,  
Minami-ku  
Kyoto-shi, Kyoto 601-8045  
Japan

State of Nationality

JP

State of Residence

JP

Telephone No.

+81-75-662-8956

Facsimile No.

+81-75-662-8969

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:
- ☐ the person      ☒ the name      ☐ the address      ☐ the nationality      ☐ the residence

Name and Address

ARKRAY, INC.  
57, Nishiaketa-cho, Higashikujo,  
Minami-ku  
Kyoto-shi, Kyoto 601-8045  
Japan

State of Nationality

JP

State of Residence

JP

Telephone No.

+81-75-662-8956

Facsimile No.

+81-75-662-8969

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

- ☒ the receiving Office  
☐ the International Searching Authority  
☒ the International Preliminary Examining Authority

- ☐ the designated Offices concerned  
☒ the elected Offices concerned  
☐ other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Shinji IGARASHI

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

003626949

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 01 November 2000 (01.11.00)	
International application No. PCT/JP00/00984	Applicant's or agent's file reference H702-01
International filing date (day/month/year) 21 February 2000 (21.02.00)	Priority date (day/month/year) 22 February 1999 (22.02.99)
Applicant ISHIMARU, Kaori et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
04 September 2000 (04.09.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Shinji IGARASHI  Telephone No.: (41-22) 338.83.38
---	---